## REMARKS

Claims 1-10 are in the case.

Claim 1 has been rejected as anticipated by Ueno and claims 2-10 have been rejected as obvious over Ueno.

The present application is concerned with a mass produced universal dental appliance which is suitable for use in reducing facial aging. The appliance comprises two parts, each intended in use to contact the posterior teeth on respective opposite sides of either the upper or lower jaw.

Each part comprises a composite structure comprising:

a first layer formed from a durable, resilient, elastomeric material having a softening point in the range from 35 to 100° C. and which in use contacts and grips the occlusal biting surfaces of the posterior teeth; and

a second layer formed from a durable, non-deformable material having a softening point over 100° C. and which in use provides a bite plate.

The second layer of each part is provided with a protrusion, formed of durable, non-deformable material having a softening point over 100° C. The protrusion extends from at least 2 mm up to 20 mm from the surface of the bite plate away from the first layer and is positioned such that in use it extends from the surface of the bite plate above at least a part of the first and/or second molar teeth of the posterior teeth which are in contact with the first part.

The present invention provides an appliance for reducing facial aging that can be mass produced on an industrial basis, thereby obviating the hitherto necessity for customized manufacture in a laboratory of an appliance that has been individually designed and made for a particular patient.

### Claim Rejections – 35 USC § 102

The Examiner has rejected claim 1 under 35 U.S.C. 102 (b) as being anticipated by Ueno (U.S.5,299,936). The Examiner considers that Ueno teaches a dental appliance including a first layer formed of a durable, resilient, elastomeric material having a softening point in the range of 35 to 100° C., and a second layer formed from a durable, non-deformable material having a softening point over 100° C., wherein the second layer comprises a protrusion having a softening point over 100° C., and extends at least 2mm from the surface.

Reconsideration is requested.

Ueno relates to a spacer which is located between the upper and lower molars and enables adjustment of the occlusion position. The spacer comprises a plastic material, which can be deformed by occlusion pressure, and a plurality of balls which are not deformed by

occlusion pressure (see e.g. the Abstract of Ueno). The balls may be made of a thermoplastic elastomer having a softening point higher than 100° C. The balls are embedded in the plastics material so as to be in a plane (see, e.g., the Abstract of Ueno).

There is no disclosure in Ueno of a layer of durable, non-deformable material which constitutes a bite plate. Even if, for arguments sake, one considers the plane of balls disclosed in Ueno as a "plate," a person skilled in the art would expect this "plate" to be deformable because the individual balls are embedded in the deformable plastics layer and connected to each other only by thin flexible joint members. That such a "plate" would be deformable is clearly envisaged in Uedo (see the paragraph commencing on Col. 5, line 39, especially lines 56 to 61, where the joint members 9, 10, which connect the balls, are described to be "thin and flexible" and "deformed as the deformation of sheet 2"). Further, there appears to be no disclosure in Ueno of a feature which constitutes a protrusion of durable, non-deformable material extending from a bite plate: if the balls in Ueno constitute the "plate" (which they do not), then there is no protrusion; if the balls in Ueno constitute the protrusion, then there is no plate.

Similarly, in the embodiment described in association with Figs. 11 to 13 in Cols. 6 to 7 of Ueno, there is no disclosure of a non-deformable material which constitutes a bite plate and certainly nothing which constitutes a protrusion of durable, non-deformable material extending from a bite plate. It is quite clear from comparison of Fig. 12 with Fig. 13 of Ueno, that the elevating member 24 is deformable, as Fig. 13 illustrates the elevating member 24 in a deformed state. The same observations are made against the reticulate elevating member 24 shown in Figs. 15 and 16 of Ueno, where the member 24 is illustrated in a deformed state in Fig. 16.

Accordingly, in view of the above observations, it is clear that the subject matter of claim 1 is not anticipated by Ueno. Reconsideration and withdrawal of rejection claim 12 is requested.

**Claim Rejections – 35 USC § 103**

The Examiner has rejected claims 2 to 10 under 35 U.S.C. 103 (a) as being unpatentable over Ueno (U.S. 5,299,936). The Examiner considers that claims 2 to 10 are obvious over Uedo.

However, as explained in the previous section, it appears that the Examiner's analysis of Uedo was erroneous: the appliance disclosed in Uedo is not the same as the appliance of the present application. In view of the Applicant's observations set out in the previous section and

with regard to the following reasons, it is believed the Examiner will find the subject matters of each of claims 1 to 10 patentable.

Though Ueno does disclose the use of a spacer to elevate occlusion position, there is no disclosure or suggestion in Ueno to replace the balls, the woven fabric, or the reticulate elevating member with a non-deformable bite plate including a non-deformable protrusion.

Moreover, Uedo is concerned with dental appliances for athletes, and makes no disclosure or teaching regarding the potential use for reducing facial aging. There is no disclosure or suggestion in Ueno which would lead a person skilled in the art to substitute the plurality of balls, woven fabric or reticulate elevating member employed in Uedo with a durable, non-deformable bite plate, including suitably positioned protrusions, in expectation of providing a dental appliance suitable for reducing facial aging.

Therefore, Uedo does not render obvious the subject matters of any of claims 2 to 10 of the present application. Reconsideration of the rejection of claims 2-10 is requested.

**Respectfully submitted,**

**COZEN O'CONNOR**

Michael B Fein

**BY: Michael B. Fein**

**Reg. 25.333**

**1900 Market St.**
**Philadelphia, PA 19103**
**215 665-4622 – phone**
**215 791-2246 - facsimile**